MR. MALLOCK AS STATISTICIAN AND BRITISH INCOME STATISTICS

Mr. W. H. Mallock is known to economists as a vigorous and assiduous opponent of radical schemes of social reorganization. His weapons, for the most part, have been rather crudely forged theories of his own making, — curious inversions, sometimes, of the notions of orthodox socialism itself. In his latest book[1] theories are ostensibly replaced by statistics, but the animus is unchanged. The specific attack is this time upon the Marxian prophecy of the progressive empoverishment of the laboring classes and the accompanying extinction of the middle classes. Tho now disavowed by socialist leaders, this doctrine has penetrated too far to be easily dislodged. Moreover, that "the rich are getting richer and the poor are getting poorer" is a fairly prevalent belief older than the Marxian dogma and likely to outlive it.

It must be admitted frankly that under the canons applicable to scientific statistical work Mr. Mallock's book could not be given a high rating. But there is something to be said for books of this kind. Mr. Mallock is dealing with a subject of public controversy in which unproved assertion is met usually by assertion equally unproved. He has put together what seem to him the facts in the case, and has indicated his sources and explained his estimates. In short, those who dislike Mr. Mallock's conclusions must reckon with what he puts forth as facts. For the time being, at least, his figures hold the field.

Those not controversially inclined will prefer to regard Mr. Mallock simply as the latest of the long series of writers, — Dudley Baxter, Leone Levi, Sir Robert Giffen,

[1] W. H. Mallock, The Nation as a Business Firm. London: A. & C. Black; New York: Macmillan. 1910.

Viscount Goschen, Mr. Chiozza Money, and others, — who have dealt with the statistics yielded by the assessment of the British income tax. But Mr. Mallock tries to reach more precise and detailed conclusions than any of these others, and his work contains a correspondingly larger element of estimate and conjecture. It is political arithmetic of the old sort, rather than statistics. These precisely formulated details give Mr. Mallock's results an air of verisimilitude, but it is safe to infer that only his general conclusions are really worth serious consideration.

The income tax statistics have been thoroly canvassed in recent years in connection with the revision of the tax itself. The revisionists desired to differentiate between what have been variously called "precarious" and "permanent," "industrial" and "spontaneous," "earned" and "unearned" incomes, — that is, between incomes from present exertion and incomes from property. Furthermore, they desired to make the tax more progressive, either by extending the present system of abatements on small incomes or by adding a super-tax on large incomes. But in order to maintain the income-yielding power of the tax it was necessary to know something about the importance of the various classes of incomes taxed. This was one of the problems canvassed by a special parliamentary committee in 1906.[1] Among the witnesses who gave evidence on this matter were Sir Henry Primrose, Chairman of the Board of Inland Revenue; Mr. Bernard Mallet, a member of the Board; Mr. T. A. Coghlan, formerly Government Statistician for New South Wales; Mr. L. G. Chiozza Money, and Mr. A. L. Bowley. Mr. Mallock uses some of the estimates offered to this committee as his own point of departure.[2] It will therefore be well to take these estimates into account.

[1] Report from the Select Committee on Income Tax. House of Commons Reports, No. 365 of 1906. This will be cited as "Report."

[2] Most of these estimates were presented as modifications of the results reached by Mr. Chiozza Money (Riches and Poverty, London, 1905), who seems to have suggested some new methods of approaching the problem. The estimates offered by Mr. Money to the Committee are substantially those contained in his book.

British income tax statistics, it is well known, are full of pitfalls for the investigator.[1] The "gross income brought under review" in the year 1904–05 (the year with which Mr. Mallock deals) was about £925,000,000. But the "net income assessed" was less than this by about £200,000,000, which was deducted on account of incomes under the £160 line taxed erroneously through collection at the source, for over-assessments adjusted and for certain non-personal incomes, including those of municipalities, as well as to cover the legal allowances for the upkeep of houses and estates, for the depreciation of machinery, and for life insurance premiums. It is obvious that some of these deductions really represent part of the total net personal money incomes over £160. Such is clearly the case with the amount paid in life insurance premiums. On the other hand, it was suggested by Sir Henry Primrose [2] that about £50,000,000 more should be deducted to cover income paid to foreigners, undistributed income from the investments of mutual insurance companies, "income" from freehold property occupied by the owner assessed under Schedule A, and certain other items. This seemingly pertinent suggestion is accepted by Mr. Bowley, who, like Sir Henry Primrose, estimates the total income to be dealt with as about £680,000,000. Mr. Money not only does not accept all of these deductions, but adds about £70,000,000 on account of income evading taxation,[3] bringing his estimate of the total up to £830,000. Mr. Mallock, in turn, thinks

[1] Some of these difficulties are described in Mr. Bowley's Elementary Manual of Statistics, London, 1910, ch. ix, and by Mr. Bernard Mallet in the Appendix to Volume iii of Palgrave's Dictionary of Political Economy, pp. 748–750. The difficulties are largely due to the method of assessment. But the utility of the statistics would be greatly increased if other than administrative considerations were allowed to influence the form in which they are tabulated.

[2] Report, p. 8.

[3] The estimates of Sir Henry Primrose and Mr. Bowley were made with specific reference to the fiscal problem, and properly include only such income as can be taxed. The amount of evasion is of course absolutely unknown. Mr. Bernard Mallet testified (Report, p. 33), "I have never seen any reliable official estimate of what it comes to." Incomes from foreign investments are known to constitute the most important factor. Cf. W. H. Price, The British Income Tax in Recent Years, Quarterly Journal of Economics, vol. xx, pp. 294, 296–299.

that Mr. Money has overestimated the amount of income evading the tax, and furthermore alleges that the profits of farming are underestimated in the assessment, and that the income from estates, buildings, and machinery is understated by reason of an inadequate allowance for depreciation and repairs. His own estimate is £750,000,000.

But for statistical purposes it is also necessary to know the number of persons taxed and the distribution of their incomes, and it is here that the information is most defective, for a very small proportion of the total assessments falls directly on personal incomes. The only direct clue to the problem is furnished by the number of tax abatements on small incomes (from £160 to £700). The gradation of the abatement divides these small incomes into four groups, and the information thus gained would be directly to the point, were it not for two difficulties. In the first place, it cannot be supposed that all the persons entitled to abatements claim them. A marked increase in the number of abatements has followed the increase of the tax rate in recent years,[1] but despite this fact and despite the accompanying growth of a class of professional abatement agents, there must be many persons who, on account of ignorance, inertia, or pride, fail to claim the abatements due them. Both the probabilities of the case and the internal evidence of the statistics indicate that these unclaimed abatements are most numerous in the higher income groups affected, where the amount to be gained through abatement is small.[2] In the second place, some persons get abatements on that part of their income which is assessed directly, but neglect to claim them on whatever additional income of theirs is taxed at the source. The published statistics are compiled on the assumption that the total amount of abatement granted is divided between a number of tax-payers who get all the abatements to which they are individually entitled.[3] For this reason the statistics understate the number of persons actually receiving abatements, and this may

1 W. H. Price, loc. cit., p. 299.

2 For the statistical evidence see the testimony of Mr. Mallet, Report, p. 21.

3 Evidence of Sir Henry Primrose, Report, p. 4.

also be supposed to be more significant for the higher income groups affected, where " additional income " from property must be most frequent.

There were about 700,000 abatements reported for the year considered. To these Mr. Money adds 50,000 on account of the first consideration mentioned, while Sir Henry Primrose adds 80,000 on account of the first consideration and 20,000 on account of the second, reaching a total of 800,000 persons with incomes between £160 and £700. Mr. Bowley, depending partly on another method, places the number at about 830,000. But Mr. Mallock is not satisfied with this. There are, he thinks, at least 930,000 incomes between £160 and £700 assessed under Schedules D and E (professional and business incomes and salaries of government and company officials) alone.[1] The total number in this income group he places at not less than 1,200,000. Even allowing for the indefiniteness of the data, this is a notable departure from the other estimates. If Mr. Mallock is right, unclaimed abatements are much more numerous than had generally been supposed.

The number of abatements throws no light on the distribution of incomes above £700, altho, by subtraction, it may help to determine their total amount. But there are two other classes of statistics which have been pressed into service at this point, — obtained repectively from the operation of the inhabited house duty and of the estate duty. The number and annual values of houses are known for Great Britain, tho not for Ireland. Mr. Money simply assumes, on the basis of common observation, that houses in London worth more than £60 and houses elsewhere worth more than £50 a year will in general be occupied by persons whose income is at least £700. This leads to the inference that there are about 275,000 of these larger incomes.[2] Of

[1] This estimate includes incomes from individual business ventures, from firms (allowing two and a half persons to a firm), and from very small (presumably " one man ") companies.

[2] The number of houses in Ireland worth over £50 annually is assumed to bear the same ratio to the total amount of income taxed as the corresponding number does in Great Britain. The number thus inferred is so small (9000) that a considerable element of error in the estimate would not appreciably affect the general results.

course many of the wealthier families have both a town house and a country house, and, in some cases, more than one of the latter. On the other hand, flats and tenement buildings are (except in Scotland) counted as single houses. To some extent these factors counterbalance each other, and, in the absence of precise information, Mr. Money ignores them. Sir Henry Primrose thinks that on account of the number of wealthy people living in private hotels and lodging houses and in houses renting for less than the limit suggested by Mr. Money, his estimate is somewhat too small. Mr. Bowley does not use the house duty returns as an essential part of his method. But they are the basis of what is distinctly the most important of Mr. Mallock's arguments in support of his principal thesis that the number of persons enjoying moderate incomes is much larger and is increasing much faster than has generally been supposed. In outline his argument is as follows: [1]

There were about 43,000,000 persons and about 8,600,000 houses and residential shops in the United Kingdom in 1905, or about five persons to a house. If we assign the 160,000 houses worth over £60 a year to families with incomes of over £700, the remainder must be distributed among other classes of the population. A rental value of £20 is taken as a fair dividing line between the houses occupied by families who receive more and families who receive less than £160 a year. There were 1,240,000 houses worth between £20 and £60 a year, — a number which is disproportionately large as compared with Mr. Money's estimate of 750,000 incomes in this class, or Mr. Bowley's estimate of 830,000, and which seems to indicate that Mr. Mallock's own estimate of 1,200,000 is not excessive.

No conceivable amount of error in the apportionment of houses to those receiving incomes of over £700 will seriously affect this apparent discrepancy. The crucial point is the validity of the selection of £20 as the lower limit of

[1] Mr. Mallock's argument is worked out in elaborate and tedious detail and involves estimates (necessarily guesses) of the number of houses occupied by each of thirteen different income classes.

annual value. It is easily possible that there are more houses worth £20 a year or over, occupied by families whose aggregate income is less than £160, than there are houses of smaller value occupied by families with larger income. Moreover, the existence of flats, tenements, and double houses worth more than £20 a year must be taken into account. If more of these are occupied by families with less than £160 income than by families with larger incomes Mr. Mallock's conclusion might be seriously affected.

Mr. Mallock endeavors to bolster up this weak spot in his argument by showing that the 7,100,000 houses renting for less than £20 are no more than sufficient for the families having incomes less than £160. But neither the number of families nor the number of incomes in this group is known, and they can only be estimated on the basis of the number of individuals (possibly some 37,000,000) left after the estimated number of persons in families reached by the income tax is subtracted from the total population. The numbers here are so large that Mr. Mallock's estimate is futile. A very slight difference in the assumed average size of family will throw the figures one way or the other. Then there are a host of minor difficulties, such as that occasioned by the transfer of servants from this class to the homes of the richer classes. Mr. Mallock himself suggests that the combined incomes in some artisan families in which there are several wage earners will put such families into the higher income classes, and sometimes into the better houses. But I imagine that the consensus of opinion would be that Mr. Mallock's use of the £20 dividing line is not altogether unreasonable, and that he has suggested a statistical problem that deserves serious consideration.

It is unfortunate that Mr. Mallock has not used his ingenuity on the estate duty statistics. A remarkably constant amount of the total real and personal property of the United Kingdom that is in holdings of over £100 in value passes under review year after year. It is difficult, however, to determine what proportion the estates of decedents make of the total amount of property holdings.

The methods generally used[1] fail to account for the amount of known income from property, unless a very high rate of interest is assumed. Mr. Bowley, however, makes a novel and fairly successful use of these returns. He disentangles various kinds of income from property from the income tax returns, and compares his results with the corresponding estate duty returns. By assuming an average succession period of 32 years he gets an average interest rate of 5.6 per cent. This interest rate is then applied to the total number of estates, grouped according to size, and the result is an estimate of the amount and distribution of the total income from property. To this is added what taxed income is known to go to individual entrepreneurs, to firms, and to employees of all kinds.[2] A number of other adjustments and corrections are made, and the results are smoothed by the use of Pareto's income equation.[3] He takes pains, however, to adjust his final results to some of the estimates made by Sir Henry Primrose. The equation is found to fit the facts fairly well, except for the very high and the very low incomes.

But it is interesting to note that Mr. Bowley did find it difficult to fit the relatively large number of high incomes indicated by the estate duty returns to the relatively small number of incomes under £700 indicated by the income tax abatements, even as modified in accordance with Sir

[1] Various "multipliers" have been suggested, most of them obtained by variant methods of measuring the average life time of a generation, and running from 30 to 45. But Mr. Bernard Mallet has recently shown, in an admirable piece of analysis (Journal of the Royal Statistical Society, vol. lxxi, pp.65–84), that the fact that in general men get richer as they grow older must be taken into account, and that the multiplier that best fits the facts of recent years is 24. This accentuates the difficulty mentioned in the text.

[2] A firm is counted as two and a half persons. It is assumed "by tradition" that about one-fifth of the income going to individual entrepreneurs and to firms is interest on capital.

[3] $\operatorname{Log} n = A - \alpha \log x$, where n is the number of persons whose income is more than x. The coefficient α measures the slope of the straight line which is the graph of the equation, and may be taken as an index of the evenness of the distribution of income. The value of α which Mr. Bowley thinks best fits the British statistics is 1.2, which may be compared with 1.4 for Prussia and 1.5 for Saxony in somewhat earlier years.

Henry Primrose's suggestions.[1] The inference is, I think, that the number of unclaimed abatements must be somewhat larger than had been supposed.[2] In the accompanying

ESTIMATES OF THE DISTRIBUTION OF INCOMES IN THE UNITED KINGDOM IN 1904–1905

Number of Incomes.	£160–£700	£700–£5,000	£5,000 and over.
Mr. L. G. Chiozza Money	750,000	235,000	14,250
Sir Henry Primrose	800,000	268,000	12,500
Mr. A. L. Bowley	830,000	155,000	14,600
Mr. W. H. Mallock	1,190,000	159,000	12,000
Amount of Incomes	(£000)	(£000)	(£000)
Mr. L. G. Chiozza Money	287,400	322,100	181,000
Sir Henry Primrose	255,000	304,000	121,000
Mr. A. L. Bowley	247,000	233,500	200,000
Mr. T. A. Coghlan	229,500	347,000	143,000
Mr. W. H. Mallock	349,000	267,000	133,000

table I have compared some of the estimates made for the Select Committee of 1906 on the Income Tax with Mr. Mallock's figures.[3] The divergence of his estimates from the general average will be noted. But all of these estimates are within the bounds of possibility, and to no one of them can be imputed any pre-eminent authority.

Mr. Mallock attempts to differentiate between " earned " and " unearned " income, and here is on familiar ground. He argues forcefully that the higher the rate of return on

[1] That the distribution of abatements, taken by itself, seems to point to a very small number of large incomes had previously been noted by Mr. Edwin Cannan in a review of Mr. Chiozza Money's Riches and Poverty (Economic Journal, vol.xvi, p. 87).

[2] Mr. Mallock does not seem to have noticed this possible confirmation of his own views. Another bit of evidence which may be favorable to Mr. Mallock's thesis has come to light. A statute of 1907 permits persons with incomes less than £2000 to claim abatements on so much of this as is " earned." The official statistics embodying the effects of this change have not yet come to hand, but we have Mr. Bowley's statement (Elementary Manual of Statistics, p. 181) that the number of abatements claimed is somewhat greater and the income affected somewhat less than would have been inferred from his estimate made for the Select Committee on Income Tax.

[3] The estimates were more detailed than is indicated, — that is, incomes were classified in a larger number of groups. The estimates of Mr. Bowley and of Sir Henry Primrose relate only to taxable income.

capital, the larger is the proportion that must be considered earned. If the technical meaning of "earned" and "unearned" is kept in mind, this proposition cannot be lightly dismissed as unsound. Mr. Mallock might have cited J. S. Mill in this connection, had he so desired.[1] He further submits that it is unfair to count income from foreign investments as part of the unearned income, unless the earnings of the labor thus employed in other countries is added to the other side of the British income statement. Even here I think there is something to be said for Mr. Mallock's view, at least as a warning against applying a distinction made for national fiscal purposes directly to the analysis of general social problems.

So far as the unassessed incomes under £160 are concerned, Mr. Mallock simply brings Sir Robert Giffen's estimates for 1886[2] up to date on the assumption that population and income have increased proportionately throughout the whole range. He neglects the mass of material that has been accumulated in recent years.[3] For earlier dates within the nineteenth century the income of the wage-earning classes is estimated on the basis of the investigations of Sir Robert Giffen and Professor Leone Levi,[4] except for the year 1800, for which Mr. Mallock ventures to construct an estimate of his own on very inadequate foundations. Moreover, the relatively greater importance of agriculture

[1] Principles of Political Economy, Book V, ch. ii (ed. Ashley, p. 816).

[2] General Report on the Wages of the Manual Labor Classes, Parliamentary Papers, 1893, Vol. lxxxiii, part 2. (c. 6889.)

[3] Mr. Mallock's estimate that £1,000,000,000 of unassessed income, or a little over, is annually divided among about 7,500,000 families agrees fairly well with other recent estimates. Just how this income is divided between wage-earners and the recipients of other small incomes (clerks, small shopkeepers, petty officials, etc.) is a question of importance. It is difficult to get at Mr. Mallock's conclusions on this point, largely on account of his annoying practice of giving estimates of the number of persons having a certain "average income," rather than the number included within a certain definite range of incomes. But he seems to have overstated the amount going to manual laborers and to have understated the amount of income going to the other class. The amount and distribution of income (other than wages) below the income tax exemption limit has recently been made the subject of careful study by a committee of the British Association. Their conclusions are given in the Journal of the Royal Statistical Society, vol. lxxiv, pp. 37 and ff. (December, 1910.)

[4] Wages and Earnings of the Working Classes, London, 1867.

in the first part of the nineteenth century and the consequently smaller importance of money incomes is not taken into account.

Unfortunately, Mr. Mallock has buried the essential part of his argument in a perfect jungle of estimates and guesses, often irrelevant, and generally unnecessary. This is, I think, partly attributable to a desire to strengthen his conclusions by resting them on results got by a number of parallel methods. His findings from the income tax statistics are fortified, for example, by the use of the house duty returns, as already noted, and also by an examination of the distribution of carriages and of male servants. Mr. Mallock attaches much importance to the fact that he reaches the same result by a number of different methods. But his results are so neatly rounded and the estimates by which he reaches them are so precise and so painfully detailed, that one is led to infer that the one goal has been kept in sight through all the devious marches. It is significant that Mr. Bowley, a practised statistician, frankly admits discrepancies in the data. But Mr. Mallock hammers his reluctant figures into some kind of conformity.

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